



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/782,755	02/23/2004	Masaharu Edo	D-1578	6182

7590 03/22/2006  
HAUPTMAN KANESAKA BERNER PATENT AGENTS, LLP  
1700 Diagonal Road, Suite 310  
Alexandria, VA 22314

EXAMINER	
SCHILLINGER, LAURA M	
ART UNIT	PAPER NUMBER
2813	

DATE MAILED: 03/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/782,755

Applicant(s)

EDO ET AL.

Examiner

Laura M. Schillinger

Art Unit

2813

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Hayashi (JP 2001-196542).

Hayashi teaches the following claimed limitations as cited below:

1. A micro power converter with multiple outputs, comprising:  
a semiconductor substrate having a semiconductor integrated circuit (1), a plurality of thin film magnetic induction components electrically connected to the semiconductor integrated circuit and having a plurality the magnetic insulation substrates (11), said plurality of thin film magnetic induction components being spaced apart from each other with a gap therebetween (0004 and layer 5), and a capacitor electrically connected to the semiconductor integrated circuit (20) (Fig.3).
2. A micro power converter according to claim 1, further comprising a magnetic isolation layer disposed in the gap between the magnetic insulation substrates for magnetically isolating the thin film magnetic induction components (Fig.1 (5) and (0004).

3. A micro power converter according to claim 1, wherein each of said thin film magnetic induction components includes one of said magnetic insulation substrates (8), a coil conductor formed on the one magnetic insulation substrate (6), and a plurality connection terminals (9 or 10) formed at a peripheral portion of said one magnetic insulation substrate (8), said plurality of the thin film magnetic induction components (11) being arranged with the gap (5) and attached at the plurality of the connection terminals (9 or 10).

4. A micro power converter according to claim 1, wherein said plurality of the magnetic insulation substrates is formed of a ferrite substrate (8).

5. A micro power converter according to claim wherein said magnetic isolation layer is formed of a non-magnetic material (0011).

6. A micro power converter according claim non-magnetic material is a resin material (0011).

7. A micro power converter according claim non-magnetic material is a ceramic material (0011).

8. A micro power converter according to claim 3, wherein said plurality of the connection terminals is formed on each of plurality of the magnetic insulation substrates same planar positions, said plurality of the connection terminals connected to two ends of each coil inductor

Art Unit: 2813

and located on one magnetic insulation substrate being located at planar positions different from those of another magnetic insulation substrate (Fig.3 (10)).

9. A micro power converter according to claim 8, wherein one said plurality of the connection terminals formed on one magnetic insulation substrate faces another magnetic insulation substrate, and has a height greater than that coil conductor formed on the one magnetic insulation substrate (Fig.3 (10)).

10. A micro power converter according to claim 3, wherein said plurality of the connection terminals includes a first terminal formed on a front surface of one magnetic insulation substrate and a second terminal formed on a rear surface of the one magnetic insulation substrate, said first terminal being electrically connected to the second terminal through a hole formed in the one magnetic insulation substrate (Fig.3 (10)).

11. A micro power converter according to claim 10, wherein said semiconductor substrate electrically connected to the first terminal (Fig.3 (10)).

12. A micro power converter according to claim 10, wherein said capacitor is electrically connected to the first terminal (Fig.3 (10)).

***Response to Arguments***

Art Unit: 2813

Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection. Applicant's certified English translation has afforded the Applicant foreign priority and has overcome the Examiner's previous rejection.

### *Conclusion*

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

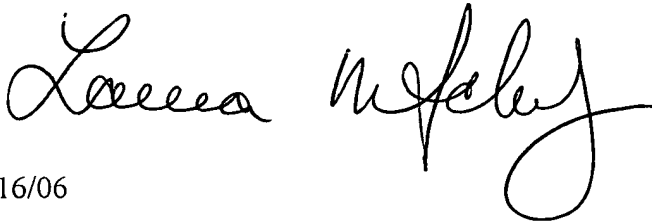
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura M. Schillinger whose telephone number is (571) 272-1697. The examiner can normally be reached on M-T, R-F 7:00-5:00.

Art Unit: 2813

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl W. Whitehead, Jr. can be reached on (571) 272-1702. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Laura M Schillinger', written in a cursive style.

Laura M Schillinger  
Primary Examiner  
Art Unit 2813

03/16/06